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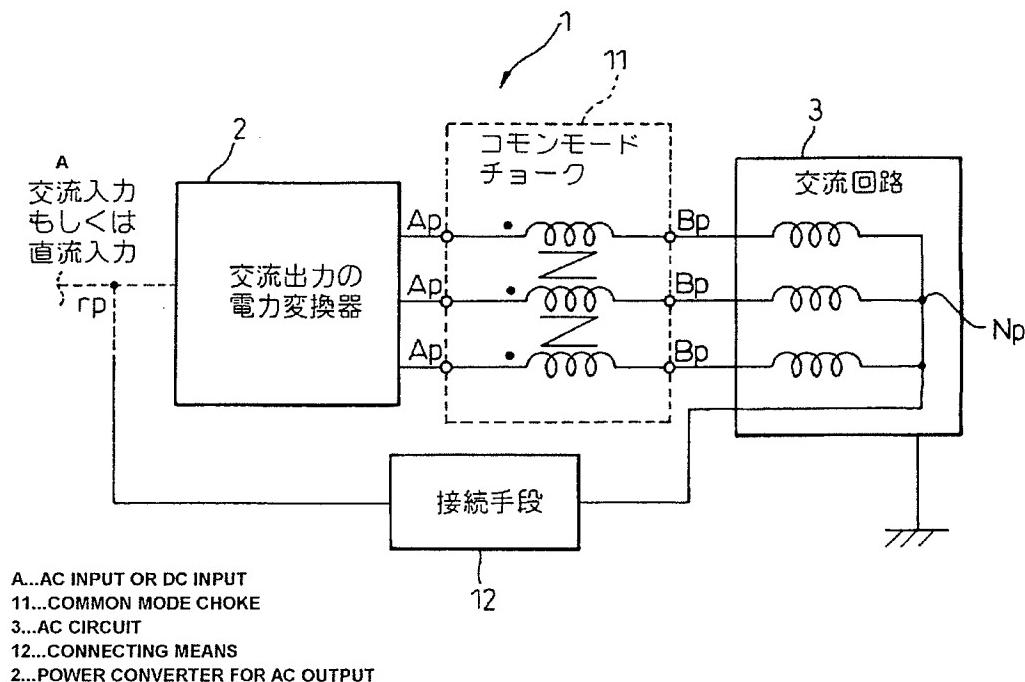
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(54) Title: FILTER

(54)発明の名称: フィルタ装置



(57) Abstract: A filter for suppressing an electromagnetic interference occurring in an AC circuit being connected with a power converter of AC output. The filter comprises a common mode choke being connected between any one terminal of the power converter on the input side, the output side or the DC side and the input terminal of the AC circuit, and means for connecting the lead wire from the neutral of the AC circuit to a reference potential point on the farther upstream side of the common mode choke where potential variation is suppressed.

(57)要約: 交流出力の電力変換器に接続される交流回路に発生する電磁障害を抑制するフィルタ装置である。このフィルタ装置は、電力変換器の入力側、出力側

[続葉有]

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DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) 指定国(広域): ARIPO 特許 (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB,

GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

添付公開書類:  
— 國際調査報告書

2 文字コード及び他の略語については、定期発行される各 PCT ガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/03119

**A. CLASSIFICATION OF SUBJECT MATTER**  
Int.C1<sup>7</sup> H02M1/12

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Int.C1<sup>7</sup> H02M1/00-1/30, 7/42-7/98, H02P7/63, H02J3/00-5/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Hiroshi HASEGAWA et al., "Common Mode Den'atsu o Hassei Shinai Seigenpa Den'atsu Shutsuryoku PWM Inverter System-Passive EMI Filter no Sekkei to Tokusei-", Denki Gakkai Kenkyukai Shiryo, Handotai Denryoku Henkan Sangyo Denryoku Denki Oyo Godo Kenkyukai SPC-01-119, 09, November, 2001 (09.11.01), pages 35 to 40, full text; Fig. 1	1-14
Y	Takashi DOMOTO et al., "Passive EMI Filter o Secchi shita Den'atsu-kei NPC(3Level) PWM Inverter no Shutsuryoku Tokusei", Denki Gakkai Zenkoku Taikai Koen Ronbunshu, 26 March, 2002 (26.03.02), pages 238 to 239; full text; Fig. 1	1-14

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search 09 June, 2003 (09.06.03)	Date of mailing of the international search report 24 June, 2003 (24.06.03)
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## INTERNATIONAL SEARCH REPORT

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-220898 A (Daikin Industries, Ltd.), 10 August, 1999 (10.08.99), Par. Nos. [0035] to [0038]; Figs. 1, 2 (Family: none)	1-14
Y	JP 2001-245477 A (Mitsubishi Electric Corp.), 07 September, 2001 (07.09.01), Full text; Figs. 1, 5, 13, 15 (Family: none)	1-14
Y	JP 2001-69762 A (Mitsubishi Electric Corp.), 16 March, 2001 (16.03.01), Par. Nos. [0043] to [0052]; Fig. 1 (Family: none)	5-7,11-13
Y	JP 2001-238433 A (Meidensha Corp.), 31 August, 2001 (31.08.01), Full text; Figs. 1 to 10 (Family: none)	5-7,11-13
A	Hiroshi HASEGAWA et al., "Passive EMI Filter no Serge Den'atsu Seigyo Koka -100m Cable de Inverter to Motor o Setsuzoku shita Baai-", Denki Gakkai Zenkoku Taikai Koen Ronbunshu, 26 March, 2002 (26.03.02), pages 241 to 242, full text; Figs. 1 to 3	1-14
A	Hiroshi Hasegawa et al., "Common Mode Den'atsu o Hassei shinai Sanso Seigenpa Den'atsu Shutsuryoku PWM Inverter System -Passive EMI Filter no Sekkei to Tokusei-", The Transactions of the Institute of Electrical Engineers of Japan. D, 01 August, 2002 (01.08.02), Vol.122-D, No.8, pages 845 to 852, full text; Figs. 1 to 15	1-14
A	Takashi DOMOTO et al., "Motor Chuseisen o Riyo shita Passive EMI Filter", Denki Gakkai Zenkoku Taikai Koen Ronbunshu, 17 March, 2003 (17.03.03), pages 124 to 125, full text; Figs. 1 to 6	1-14